The Manitoba Energy Authority

The Manitoba Energy Authority is a Manitoba Crown Corporation responsible for ensuring the long-term energy security of the Province and negotiating the export and import of electrical energy from and into the Province.

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Letter of Transmittal

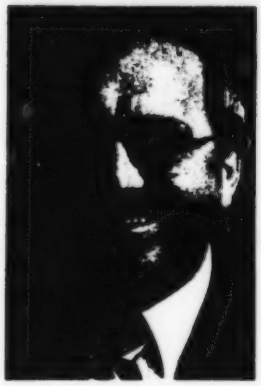
The Honourable Pearl McGonigal
Lieutenant Governor of the
Province of Manitoba

May it please your Honour:

I have the honour of presenting to you the Annual Report of the Manitoba Energy Authority for the fiscal year ending March 31, 1986.

Wilson Parasiuk
Minister

Minister's Message



Since the mid 1960's, Manitoba's vast northern hydro-electric potential has provided a key building block for the province's diversified economy. Clean, reliable, renewable, and inexpensive power from Manitoba's northern rivers has provided economic benefits to all Manitobans. Manitoba's "hydro advantage" has meant an electricity rate structure which is the lowest of any major jurisdiction in North America, offering a competitive edge to industry located in this province.

Our hydraulic resources can meet our electricity needs well into the twenty-first century. In the meantime, Manitoba has the potential to produce large amounts of hydro-electricity for export.

The Manitoba Energy Authority plays an important role in seeing that this natural heritage is developed and used wisely. The Authority has taken the lead in co-ordinating the efforts of provincial government departments and Manitoba Hydro in their common efforts to ensure Manitoba's hydro resources are utilized to build a stronger Manitoba.

Over the past year, the Manitoba Energy Authority has continued to negotiate power export sales with utilities in Canada and the United States. The Authority is fulfilling its mandate to ensure Manitobans receive the maximum benefits from construction of the Limestone Generating Station. Record rates of Manitoba participation in the project, combined with an exemplary training program for northern and northern native workers, have made Limestone a model for future northern development projects.

The Manitoba Energy Authority can look back on the past year's activities with satisfaction and look forward to the coming year with well deserved optimism.

Wilson Parasiuk
Minister of Energy and Mines

Chairperson and Executive Director's Message

The past year has been a gratifying one for the Manitoba Energy Authority. The Manitoba Energy Authority has actively pursued electricity export negotiations, continued to co-ordinate government policy related to the Limestone Generating Station and promoted energy intensive industry investment in this province.

Power export negotiations have progressed smoothly. In February, 1986 Manitoba signed a detailed memorandum of understanding with the Upper Mississippi Power Group *(UMPG)*, made up of six mid-western United States utilities. This arrangement includes a 16 year 550 megawatt firm power sale, and a 20 year 500 megawatt seasonal diversity exchange.

These new agreements have implications for the 1 400 megawatt Conawapa Generating Station and the third bipole from northern Manitoba to the south. They will also require the construction of a new transmission line from the vicinity of Winnipeg to the vicinity of Minneapolis.

Final contracts with the UMPG utilities for the diversity exchange and the firm sale are expected to be in place towards the end of the 1986 calendar year.

As activity at the Limestone Generating Station site reaches high gear, our efforts in the areas of industrial benefits, purchasing and tendering, and in particular northern training and employment, are bearing fruit. Graduates of Limestone Training and Employment Agency programs have significantly improved the participation rate of northern and northern native people in a major hydro construction project. Manitoba business participation in Limestone is at unprecedented levels.

Part of the mandate of the Manitoba Energy Authority is to encourage the use of Manitoba's hydro-electric power to strengthen and diversify the province's industrial base. An increased emphasis has been placed on informing the international business community of the advantages of Manitoba's hydro-electric power for energy intensive industries. Attracting energy intensive industries to Manitoba will increasingly become a priority of the Manitoba Energy Authority.

We know the coming year will provide a continuation of the challenges which have marked the past one. Through the work of the staff of the Manitoba Energy Authority and with the continued co-operation of Manitoba Hydro and other provincial departments and agencies, we are hopeful that our efforts will continue to meet with success.

M. Eliesen

Marc Eliesen
Chairperson and Executive Director

The Manitoba Energy Authority

Corporate Profile

The Manitoba Legislature established the Manitoba Energy Authority through the Manitoba Energy Authority Act, assented to on July 29, 1980. The Act assigns to the Authority responsibility for energy allocation and electrical energy marketing. The Board of Directors of the Manitoba Energy Authority has duly handled these responsibilities during the fiscal year ending March 31, 1986.

This mandate makes the Manitoba Energy Authority responsible for formulating and implementing policies that ensure the long-term energy security of Manitobans. The Act designates the Manitoba Energy Authority as the agency responsible for investigating potential extra-provincial markets for electrical energy for the Province. In addition, the Manitoba Energy Authority undertakes related duties as directed by the Minister of Energy and Mines or the Lieutenant Governor-in-Council.

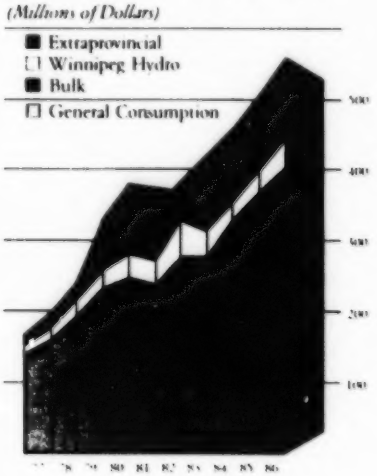
Integrated System – Manitoba Hydro & Winnipeg Hydro

For the year ending March 31, 1986

Winter Capacity *(000 kW)*	4 091
Manitoba Firm Peak Demand *(000 kW)*	2 941
Total Generated and Purchased *(000 000 kW·h)*	23 421
Firm Energy Supplied for Manitoba *(000 000 kW·h)*	15 366
Exports *(000 000 kW·h)*	
Ontario	917
Saskatchewan	222
United States	6 152
Total	7 291

Revenue from the Sale of Power

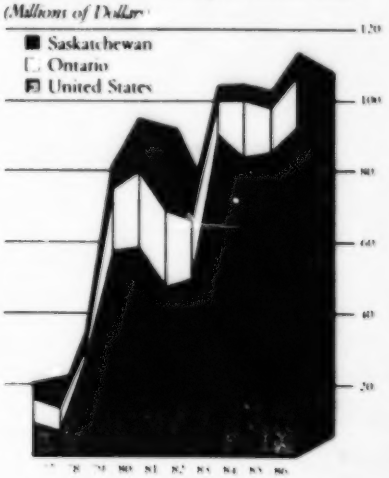
(Millions of Dollars)



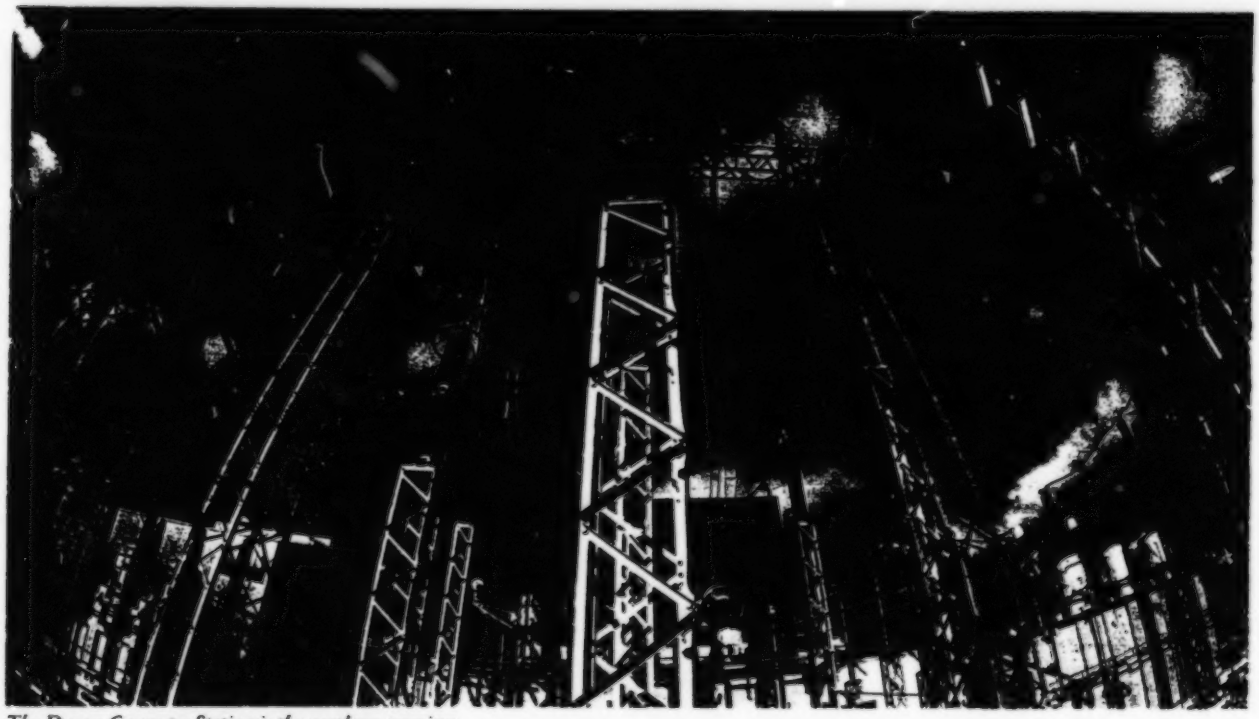
For the years ending March 31

Revenue from Extraprovincial Sales

(Millions of Dollars)



For the years ending March 31



The Dorsey Converter Station is the southern terminus for the HVDC lines from the Nelson River.

Current Export Agreements

Utility	Type	Duration	Amount	Terms
Northern States Power (N.S.P.)	Interruptible	1980-1992	19 500 000 MWh	Greater of cost plus 10% or shared cost savings formula.
Northern States Power (N.S.P.)	Firm Power Sale	1984-1992 (summer)	200 MW at 20% monthly Capacity Factor	Rates negotiated 3 years prior to delivery.
Northern States Power (N.S.P.)	Diversity Exchange	1980-1992	300 MW at 20% monthly Capacity Factor	No charge for capacity. Energy at greater of MAPP* peaking power rate at time of delivery or supplier's cost plus 10%.
Northern States Power (N.S.P.)	Firm Power Sale	1993-2005	500 MW/year at 75% Annual Capacity Factor	Capacity charge at 80% of NSP's Sherco Thermal plant. Energy charge at 80% of Sherco's variable costs.
Minnesota Power & Light (M.P.&L.)	Interruptible	1976-1986	2 000 000 MWh	Price based on shared cost savings formula.
Minnkota	Interruptible	Ongoing	As available	Negotiated formula based on MAPP* rates.
Otter Tail Power	Interruptible	Ongoing	As available	Negotiated formula based on MAPP* rates.
United Power Association	Interruptible	Ongoing	As available	Negotiated formula based on MAPP* rates.
Saskatchewan Power Corporation	Interruptible	Ongoing	As available	
Ontario Hydro	Interruptible	Ongoing	As available	

*MAPP — Mid Continental Area Power Pool

Manitoba Hydro's Load Dispatch Office in Winnipeg continuously monitors available power and power flows on each of the utility's inter-connections, dispatching available power as required.

Activities of the Manitoba Energy Authority

Electrical Exports

Following the signing of a contract for the sale of 500 megawatts to Northern States Power *(NSP)* of Minneapolis, Minnesota and its subsequent approval by both the National Energy Board and the Government of Canada, discussions and negotiations continued with a number of Canadian and American utilities regarding future export sales.

This included ongoing discussions with:

- The Western Area Power Administration of Golden, Colorado
- The Wismintoba Group — eight utilities primarily in Wisconsin
- The Upper Mississippi Power Suppliers Group — six utilities operating in the mid-west U.S.A.
- Saskatchewan Power Corporation, and
- Ontario Hydro

The Energy Authority's strategy has been to pursue a number of export options at one time, seeking arrangements which result in the largest possible benefits coming to Manitoba.

A detailed memorandum of understanding was signed in February 1986 with the Upper Mississippi Power Group *(UMPG)*. UMPG is made up of 6 mid-western American utilities. These are:

- Dairyland Power Co-operative in LaCrosse, Wisconsin;
- Interstate Power Company of Dubuque, Iowa;
- Northern States Power Company of Minneapolis, Minnesota;
- Otter Tail Power Company of Fergus Falls, Minnesota;
- Southern Minnesota Municipal Power Agency of Rochester, Minnesota, and
- United Power Association of Elk River, Minnesota.

In total the utilities of UMPG have a generating capacity of 9 650 megawatts serving customers in Minnesota, Michigan, Wisconsin, North Dakota, South Dakota, Iowa and Illinois.

Manitoba
Dauphin
Brandon
Winnipeg

The agreement with the UMPG utilities has three components. The first is a 550 megawatt, 16 year firm power sale to UMPG beginning in 1996. The price structure for this sale, as that used in the 1984 Northern States Power agreement, will relate to the cost of building and operating a coal-fired electrical generating station in the UMPG area.

The UMPG sale will be longer than the previous agreement with NSP. It will involve the export of 51 billion kilowatt hours compared to about 40 billion kilowatt hours to be exported under the NSP contract.

The second part of the UMPG arrangement is a 500 megawatt, 20 year seasonal diversity exchange also beginning in 1996. The exchange includes a 300 megawatt trade with UMPG as well as 200 megawatts with NSP.

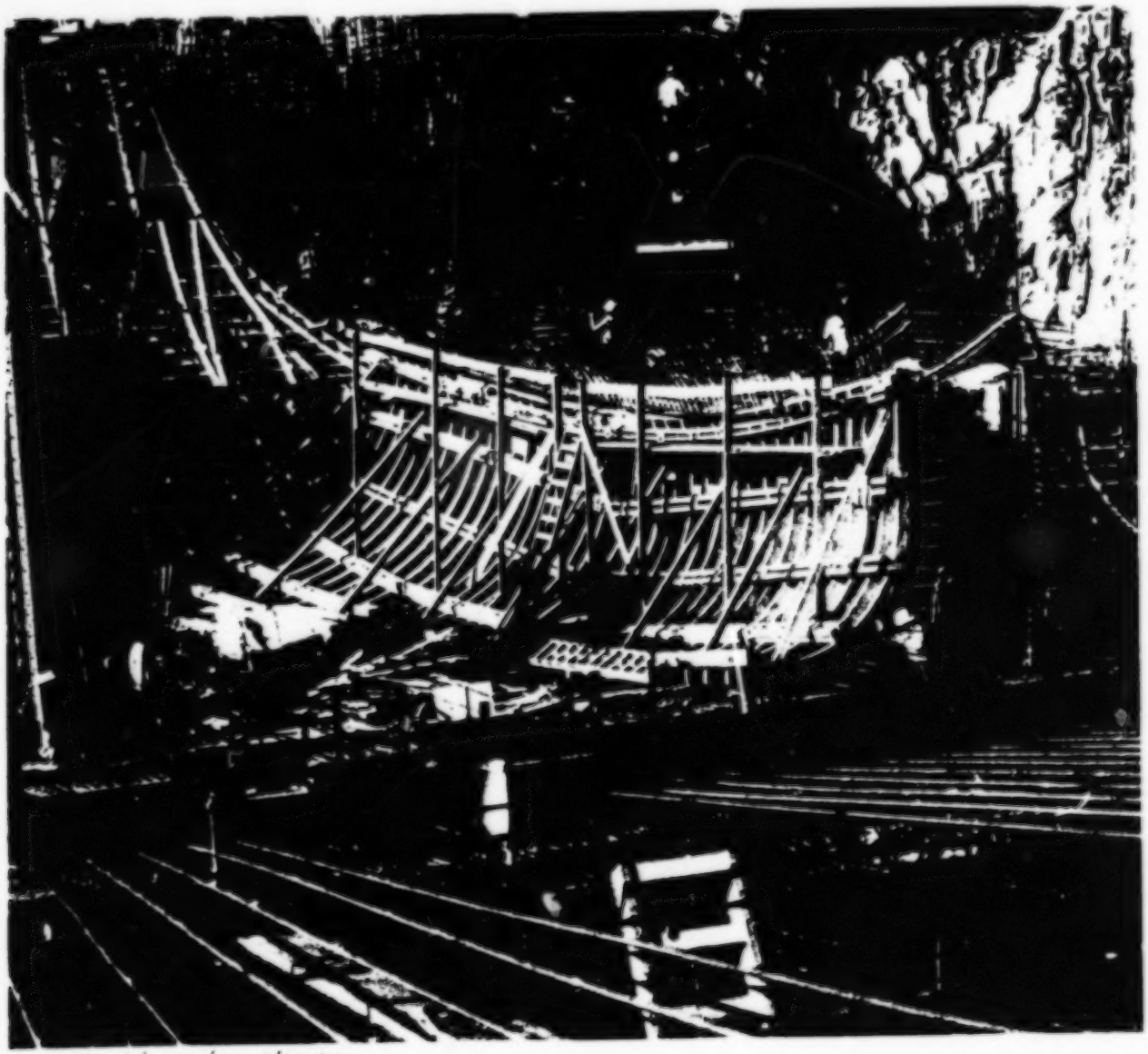
Manitoba has for sometime pursued a major seasonal exchange with utilities to the south. In the late 1970's Manitoba and the Nebraska Public Power District began negotiations toward such an agreement; however Nebraska abandoned these discussions last year. Since then we have been actively seeking other possible diversity partners and we have now been successful.

The third component involves the construction of a new transmission line to be constructed from the vicinity of Winnipeg, Manitoba to the vicinity of Minneapolis, Minnesota.

The firm sale to UMPG is expected to generate an estimated $4 billion plus in revenue for Manitoba. Together with the diversity arrangement, the agreement is expected to be at least as profitable for Manitoba as the previous 1984 NSP agreement.

Following contract completion with UMPG, an application for a license will be submitted to the National Energy Board of Canada for its required evaluation and approval.

In February, 1986, a 4 year 200 megawatt summer peaking power sale (1993 to 1996) was successfully negotiated with Northern States Power Company of Minneapolis, Minnesota. As above, Manitoba will now be seeking a license for this sale from the National Energy Board.



Construction of the powerhouse at Limestone.

Limestone Planning and Co-ordination

In 1984, the Manitoba Energy Authority was charged by the Province with the responsibility to co-ordinate the development and implementation of policies related to purchasing and tendering, industrial benefits, training and employment and communications for the Limestone Generating Station project. Over the past year our efforts have begun to bring successful results.

Purchasing and Tendering

Last year we reported on our work with Manitoba Hydro in developing new purchasing and tendering policies designed to encourage the participation of Manitoba companies in the Limestone project. The opportunities at Limestone were publicized through business information seminars throughout the province. The capabilities of Manitoba companies were outlined in two sourcing directories. These directories helped companies locate and use Manitoba and northern Manitoba firms in their subcontracts and supply contracts for hydro development projects.

The effectiveness of this approach is apparent in the involvement of Manitoba firms in the Limestone project. As of March 31, 1985 more than 80%, by value, of the work at Limestone has been contracted to Manitoba companies. This is the highest rate of Manitoba involvement on a major hydro development project in the province's history.

At the same time, continued emphasis on competitive tendering has allowed this level of Manitoba involvement to be achieved at a cost well under Manitoba Hydro's projected costs for construction of the Limestone Generating Station. Recent estimates, based on the contracts awarded to date, have placed the cost of the project at $1.94 billion, down 23% from the previous estimate of $2.52 billion.

Industrial Benefits

The Manitoba Energy Authority continues to work with potential suppliers to maximize the industrial benefits to Manitoba from the Limestone project. During the previous fiscal year an industrial benefits agreement with Canadian General Electric was negotiated as part of the contract for turbines and generators for Limestone. The agreement will provide an estimated $150 million in long term direct and indirect economic benefits to Manitoba. Manitoba Energy Authority and CGE officials have continued to work out details related to the agreement's implementation. In the past year two research grants each totalling $100,000 to the Manitoba Microelectronics Centre and the Manitoba High Voltage Direct Current Research Centre were announced under the agreement.

Training programs prepared northerners for work at Limestone.

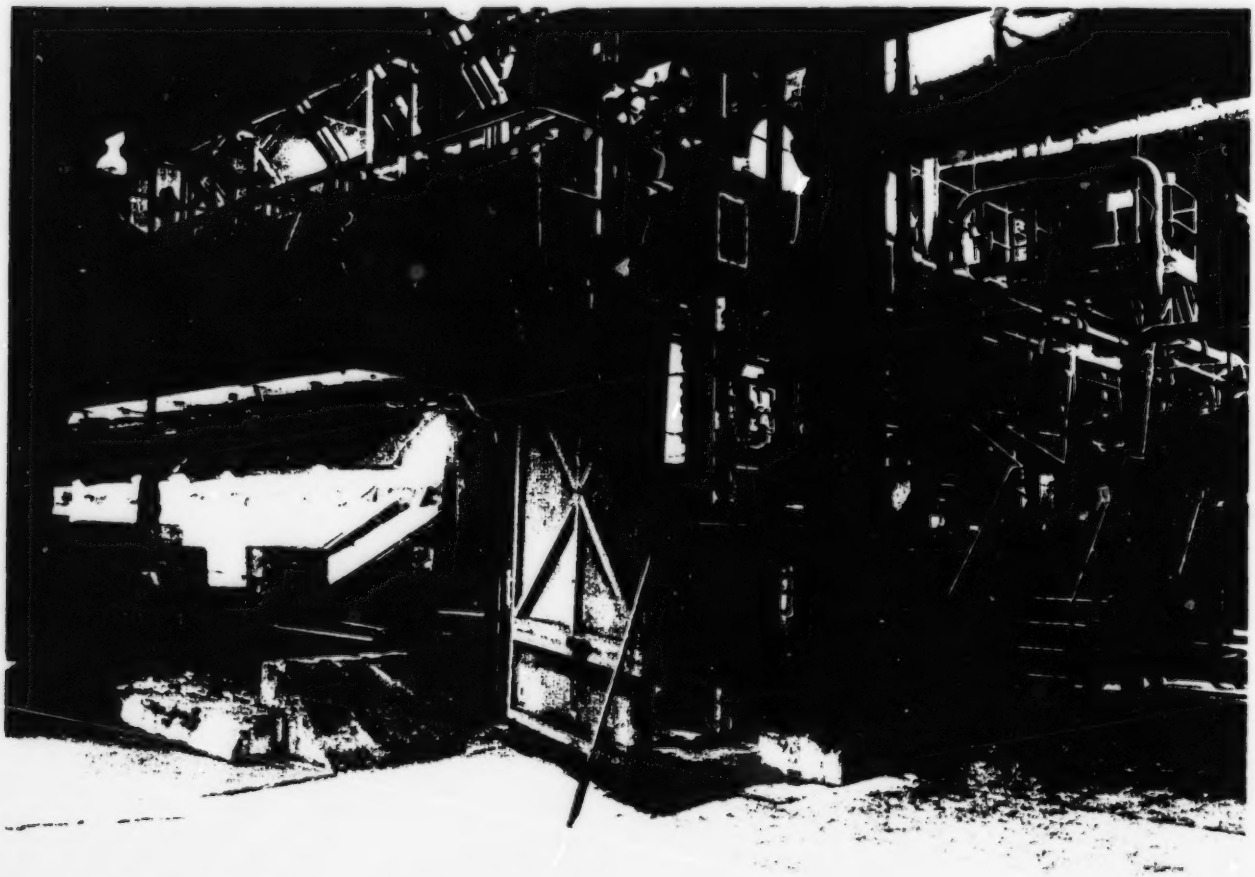
Training and Employment

The Manitoba Energy Authority, through the Limestone Training and Employment Agency, has established training programs to prepare northern and northern native Manitobans for work on Limestone and other northern hydro projects. Working with Manitoba Hydro, provincial and federal government departments, educational institutions, and local communities, the Agency has established a mix of institutional, community-based and simulated training programs which have received recognition across the country and from other foreign jurisdictions. As of March 31, 1986, a total of 818 trainees had entered the programs, with approximately 70% successfully completing their training.

The Manitoba Energy Foundation

The Minister of Energy and Mines has announced that legislation to establish a Manitoba Energy Foundation is being prepared. The Foundation will be used to provide investment capital, loans or loan guarantees for projects which promote the economic and social development of Manitoba.

The Foundation will be financed through a portion of the net revenues from designated Manitoba electricity export sales. Manitoba Hydro will recover generating and transmission costs incurred in making the export sales. The Manitoba Energy Authority and Manitoba Hydro will receive an amount equal to the expenses they incur in negotiation of the export sales agreements. The remaining balance, or profit associated with the sales, will be divided equally between Manitoba Hydro and the Manitoba Energy Foundation.



The Manitoba Rolling Mills in Selkirk, Manitoba are large industrial energy users.

Energy Intensive Industries

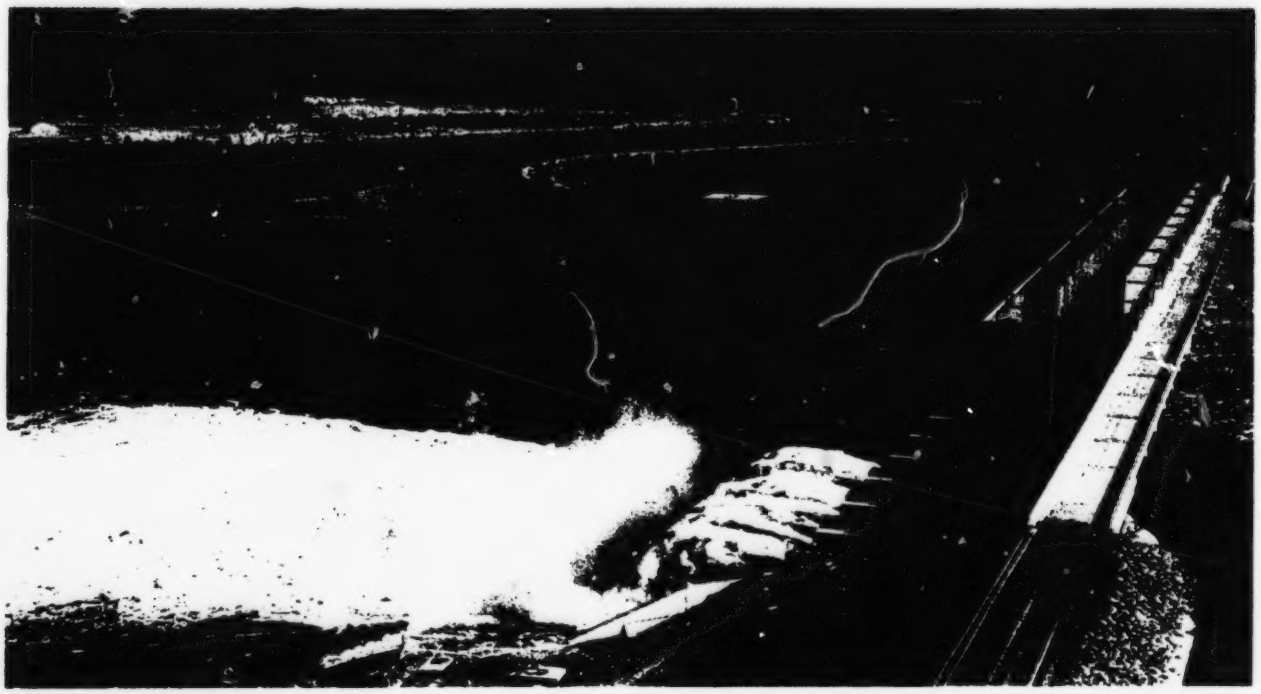
The Manitoba Energy Authority continued to promote investments in Manitoba from companies whose industrial processing requires substantial amounts of electricity. The lowest electrical rate structure in North America and a hydro generating system which guarantees that rates will remain stable over the long term make Manitoba an attractive place for these energy intensive industries to locate.

Hydro-electric generating costs are predictable. They are free from the uncertainties of fuel price fluctuations associated with coal and nuclear generating systems. Manitoba's long-term supply of low-cost, clean electricity is assured. The basic infrastructure is now in place to double the electrical generating capacity of the province. Generating facilities can be added incrementally at relatively low cost, using proven technology.

In targeting energy intensive industries, the Manitoba Energy Authority is giving particular attention to aluminum and silicon metal, and other related industries. Over the past year a number of silicon metal producers, responding to expected increases in world demand, have been examining Manitoba as a site for expansion. Discussions with these firms are ongoing.

During the past year, the Manitoba Energy Authority continued discussions with aluminum producers around the world. The current excess capacity in the industry precludes any immediate additions to their existing production facilities. However, a recently completed joint federal-provincial study on aluminum smelter and transportation costs shows that Manitoba retains a strong competitive position as a possible site for basic aluminum smelting.

The Manitoba Energy Authority will continue in the coming year to pursue and promote energy intensive industrial development in the province.



The Long Spruce Generating Station on the Nelson River.

Hydro Electric Generating Stations in Manitoba

Developed Sites	River	Winter Capacity in Megawatts	Completed
Kelsey	Upper Nelson	224	1972
Kettle	Lower Nelson	1 272	1974
Long Spruce	Lower Nelson	980	1979
Jenpeg	Upper Nelson	126	1979
Grand Rapids	Saskatchewan	472	1965
Great Falls	Winnipeg	132	1928
Seven Sisters	Winnipeg	150	1952
Pine Falls	Winnipeg	82	1952
McArthur	Winnipeg	56	1955
Pointe du Bois *(Winnipeg Hydro)*	Winnipeg	72	1926
Slave Falls *(Winnipeg Hydro)*	Winnipeg	68	1947
Under Construction			
Limestone	Lower Nelson	1 280	(1992)

Financial Statements

Auditors' Report

To the Board of Directors
of the Manitoba Energy Authority:

We have examined the statements of receipts and disbursements of the MANITOBA ENERGY AUTHORITY for the years ended March 31, 1986 and 1985. Our examinations were made in accordance with generally accepted auditing standards, and accordingly included such tests and other procedures as we considered necessary in the circumstances.

As explained in Note 2, the accompanying Statements of Receipts and Disbursements have been prepared in accordance with the Government of the Province of Manitoba's cash basis of accounting. The method of accounting used to prepare the statements of receipts and disbursements differs from generally accepted accounting principles and is not intended to present financial position, results of operations or changes in financial position in conformity with generally accepted accounting principles.

In our opinion, the financial statements referred to above present fairly the receipts and disbursements of the Manitoba Energy Authority for the years ended March 31, 1986 and 1985.

Arthur Andersen & Co.

Arthur Andersen & Co.

Winnipeg, Manitoba

Statements of Receipts and Disbursements

For the years ended March 31, 1986 and 1985

	1986	1985
Receipts:		
Department of Energy and Mines appropriation	$ 125,343	$ 249,809
Advances from the Province of Manitoba (Note 3)	1,150,000	625,000
Miscellaneous receipts	16,838	
	$1,292,181	$874,809
Disbursements:		
Operating expenditures:		
Personnel services (Note 4)	$ 479,618	$ 264,838
Grants	—	10,000
Transportation	52,859	44,823
Communication	103,470	19,747
Rent (Note 4)	58,096	11,177
Professional services (Note 4)	405,883	261,974
Debt financing (Note 3)	125,343	30,970
Other operating	55,737	62,383
Total operating expenditures	$1,281,006	$ 705,912
Capital expenditures:		
Leasehold improvements	$ 3,613	$ 65,174
Furniture, furnishings and office equipment	527	54,180
Word processing and computer equipment		47,932
Total capital expenditures	$ 4,140	$ 167,286
Total disbursements	$1,285,146	$ 873,198
Excess of Receipts over Disbursements	$ 7,035	$ 1,611

Notes to Statements of Receipts and Disbursements

For the years ended March 31, 1986 and 1985

1. Authority

The Manitoba Energy Authority is incorporated under a specific Statute in the Province of Manitoba, being "The Manitoba Energy Authority Act", (assented to July 29, 1980), Chapter E 112 of the Statutes of Manitoba, 1980.

The Authority is responsible for developing and implementing policies to ensure the long-term stability and availability of electrical energy supply to Manitobans. The Authority is also responsible through its Electrical Energy Marketing Committee for negotiating export sales of electrical energy with other provincial utilities and with utilities in the United States.

2. Significant Accounting Policies

a) *General*

The accompanying Statements of Receipts and Disbursements has been prepared in accordance with the Government of the Province of Manitoba's cash basis of accounting, including the accounting for pension costs as set out in Note 2 b).

Receipts and Expenditures are recorded on a cash basis, modified to allow an additional forty-five days after the end of the fiscal year for the processing of receipts and payments pertaining to that fiscal year.

Capital acquisitions of all kinds (defined as real property and chattels that are deemed to have an economic life in excess of one year) are recognized as expenditures in the year of acquisition.

b) *Pension Costs*

Pursuant to subsection 29 of The Manitoba Energy Authority Act, the Lieutenant Governor in Council has directed that The Civil Service Superannuation Act apply to employees who were employed under The Civil Service Act immediately prior to becoming employed as officers or employees of The Manitoba Energy Authority effective the date on which they become employed with The Manitoba Energy Authority. In accordance with the provision of the Manitoba Civil Service Superannuation Act, the Authority is required to contribute 50% of the pension disbursement made to retired employees. Such payments are to be charged to operations as incurred and provision is not made in the accounts to fund current or past service obligations to the Superannuation Fund. No such payments were made for the years ended March 31, 1986 and 1985.

An actuarial evaluation of the Civil Service Superannuation Fund will be completed in mid 1987 based on the calendar year ending 1986. This evaluation will determine the precise calculation of the unfunded liability which exists for the Authority's participating staff.

The Authority has also established a Money Purchase Pension Plan for those employees who do not contribute to the Civil Service Superannuation Fund. The Plan provides for full vesting after a qualifying period by the employees. Both the Authority and the employees contribute to the Plan on the basis of the employees' regular salary.

3. Capital Authority

The Legislature has authorized the borrowing and spending of monies for the operations of The Manitoba Energy Authority as follows:

a) Legislature Authority - The Loan Act, 1984
b) Authorization - $5,000,000
c) Unexpended balance as at March 31, 1986 - $3,225,000

Advances of $1,150,000 and $625,000 for the years ended March 31, 1986 and 1985 bear interest at the prevailing bank prime rate and accrued interest is paid quarterly from an appropriation of the Department of Energy and Mines. Advances are repayable at any time in whole or in part at the option of the Lieutenant Governor in Council.

4. Future Commitments

As at March 31, 1986, the Authority has future commitments relating to its lease for premises (to May 31, 1987) and other leases and maintenance agreements totalling approximately $60,000.

The Authority has entered into employment contracts with five of its employees. These agreements terminate during the period March 31, 1987 to October 2, 1987. These agreements entail an annual commitment of approximately $304,900. The Authority has also entered into consulting contracts which have a potential future obligation totalling $158,700.

5. Northern States Power Company (NSP) Contract

The Authority negotiated and is a co-signer with The Manitoba Hydro-Electric Board in an agreement dated June 14, 1984 to supply 500 MW or 500,000 Kilowatts of power to NSP for a 12-year period — May 1, 1993 to April 30, 2005, at an annual average capacity factor of 75%.

It is anticipated that the Authority will be reimbursed for expenses incurred in negotiating export sale agreements.

6. Limestone Industrial Benefits Coordination

The Manitoba Energy Authority is responsible for coordinating all departmental/Manitoba Hydro activities relating to industrial and employment benefits associated with the Limestone Generating Station Project.

The Manitoba Jobs Fund provides funding for all Limestone related expenditures except for the salary of the Information Services Co-ordinator, which was paid by the Authority to January 3, 1986 and consulting contracts entered into regarding Limestone Project financing.

7. Related Party Transactions

The Province of Manitoba, through the Department of Energy and Mines, provides administrative services to the Authority without charge for such services. Management estimates the value of these services for the years ended March 31, 1986 and 1985 to be $12,000 and $10,000 respectively.

MANITOBA ENERGY AUTHORITY

Directors

Marc Eliesen - *Chairperson*
Executive Director
Manitoba Energy Authority

Saul Cherniack - *Vice-Chairperson*
Director
Manitoba Hydro

John Arnason
Chief Executive Officer
Manitoba Hydro

Alan Puttee
Executive Officer-Energy Policy
Manitoba Energy Authority

Patty Park
Special Assistant to the Minister
Department of Energy and Mines

Management

Marc Eliesen
Executive Director

Alan Puttee
Executive Officer - Energy Policy

Gordon MacLean
Senior Economic Consultant

Peter Ferris
Employment Services Officer

Leslie Turnbull
Executive Assistant & Policy Analyst

Ron Bailey
Information Services Coordinator
Limestone Development Offices

Garry Hastings
Management Services Officer
Secretary-Treasurer to the Board

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